

NOTES ON A COLLECTION OF REPTILIA FROM WAZIRISTAN AND
THE ADJOINING PORTION OF THE N. W. FRONTIER PROVINCE.

BY

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AND

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(With 4 Photos and a map*.)

INTRODUCTION BY CAPT. INGOLDBY.

The collection was got together during the operations of the Waziristan Field Force from December 1919 to March 1921. The following notes are primarily intended to serve as an indication to any members interested who may be stationed in or near the area covered.

While much work has been done in Sind and Baluchistan, where collections have been made by Murray, Blanford and Aitchison, and more recently by the Quetta Nat. Hist. Soc. and by Mr. J. E. B. Hotson, very little has been done except on birds in the country north-east of Baluchistan between Afghanistan and the Indus. Much of this country has been difficult of access except during the course of punitive expeditions which though of fairly frequent occurrence have commonly been of brief duration. From S. Waziristan a few specimens have been sent to the Society by Capt. W. B. Cotton, and Col. Wall has from time to time recorded snakes received from various officers from other parts of the province.

A spell of some months of comparative inactivity for my unit during the early part of the operations, spent on the L. of C., enabled me to train a squad of stretcher-bearers as collectors, and it is mainly to their exertions later on that this collection owes any claim it has to being fairly representative. I am indebted for a few interesting specimens to various officers, especially to Capt. J. M. Muirhead, at Kirghi, Capt. R. R. Thomson, M.C., R.A.M.C., at Kot Kai, and Capt. Russell, L.P.O., Ladha, through whose kindness I was enabled to get into touch with the Mahsuds of Kaniguram who brought, among other interesting specimens, the only examples I obtained of *Vipera lebetina*.

2. The country covered lies between 31°45'—32°40' N. and 69°35'—71°00' E. It consists of a strip of land running E. by S. to W. by N. about 20 miles broad and 90 miles long, lying between the Indus in the Dera Ismail Khan District and a line joining Wana and Kaniguram† near the Afghan border. The strip cuts across two well-defined types of terrain, the well-known flat semi-desert plain, a continuation of the Sind deserts which is the western side of the Indus basin floor, and the barren hilly country of Waziristan. The bulk of the collection was made in this latter area, mainly in or near the valleys of the TANK (TAK) ZAM, BADDAR TOL, SHAHUR R. and the WANA TOL.

3. Waziristan lies immediately to the north and north-east of the Zhob district of Baluchistan on a northerly sector of the eastern face of the Helmand Indus watershed. More generally, it occupies part of the eastern fringe of the plateau which includes Persia, Baluchistan, and the great part of the Afghanistan. It is 'border' country in a zoological and geographical, as well as in a political sense. In the former senses it belongs more properly to Afghanistan than to British India. It comes, however, into the area prescribed by the F.B.I.

The country consists of a close and intricate series of hills reaching occasionally as high as 12,000 ft., intersected by boulder-strewn river beds, and of elevated

* The map will be issued with a subsequent number.

† The capitals respectively of the 3 Wazirs and of the Mahsud.

stony plains. These latter are quite small for the most part, by far the largest reaches from Wana towards the Afghan border, and is about 10 miles broad by 23 miles long; this has an average elevation of rather over 5,000 ft.

The western boundary of the country is the Afghan border. The eastern boundary follows, roughly, the junction of the foothills with the Indus plain at an elevation of about 1,000 ft.

A few patches of alluvial soil in the bends of the rocky river beds, on the plains, and in the wider valleys permit of cultivation. Above 4,000 ft. the hills are increasingly but sparsely forested, chiefly with holly oak (*Quercus ilex*) up to the pine level, which is said to be about 8,000 ft. here. Below 4,000 ft., they support a few scattered bushes of acacia, wild olive, 'sloe' 'bir,' with patches of mazri palm, tussocks of coarse grass and desert herbs. In some of the wider valleys these occur in considerable profusion. The climate is dry. The heat in summer is excessive in all parts below about 5,000 ft. In winter the diurnal range of temperature is great. Rainfall is fitful and scanty throughout the area. Falls of snow below 5,000 ft. are rare. Thunderstorms during late spring and summer are occasionally of sufficient violence to cause serious spates in the river beds. The most interesting feature of the climate is the occurrence throughout the year of frequent and severe dust storms, which sometimes are of many hours duration. These seem to occur with the greatest frequency and violence between the levels of about 3,000 to 5,000 ft.

The difference in the character of the forested country above 5,000 ft. from that of the dry scorched hill sides below that level is strongly marked; it is reflected in the character not only of the flora but of the fauna of the two areas.

The following lists are forms more or less characteristic of their respective areas; those given for one area either were not found or are rare in the other area:—

Below 4,000 ft.

Above 5,000 ft.

MAMMALIA.

Paraëchinus blanfordi.
Herpestes edwardesi feruginous
Grypomys gleadowi.
Dipodilus indus.
Meriones hurrianæ.
Tatera sherrini.

Hemiëchinus megalotis.
Paraëchinus amir.
Mustela foina.
Meriones swinhœi.
Cricetulus sp.

REPTILIA.

Ophidia.

Eryx jaculus.
Zamenis ventrimaculatus,
Psammophis schokari.
" *leithii.*
Echis carinatus.

Zamenis mucosus.
" *rhodorachis var ladacensis.*
Vipera lebetina.

Lacertilia.

Agama isolepis.
" *rubrigularis.*
Uromastix hardwickii.
Acanthodactylus cantoris.
Eremias guttulata.

Eublepharis macularius.
Agama nupta.
" *lirata.*
" *caucasica.*
Calotes versicolor.
Eremias velox.

BATRACHIA.†

Rana tigrina.	Rana sternosignata.
„ strachani.	„ limnocharis.
Bufo stomaticus.	

On the wooded hill sides and cultivated areas above 5,000 ft. snakes are locally pretty common, as in the neighbourhood of KANIGURAM, but on the whole they are scarce, in notable contrast to lizards and frogs which abound (the latter somewhat surprisingly in view of the nature of the country) throughout the whole tract.

On the whole the collection is not of great interest. Of Lacertilia one new species was obtained, described in this paper by Miss Procter, and in several cases the previously known range of species already recorded from Persia or Baluchistan is slightly extended. In only one case (*Mabuia dissimilis*) is the range extended westwards. Most of the lizards common in the western Himalayas do not occur in these hills.

The collection is certainly not complete. Many species are very local; those found in one valley often differ strikingly from those of an adjacent valley. At no place was it possible for military reasons to reach the pine level. The absence among other forms likely to occur of *Phrynocephalus* and *Ophiomous* will be noticed. I was disappointed not to find more of the desert geckos; neither *Stenodactylus* nor *Alsophylax* was obtained, though both are said to occur in the Zhob.

The Iranian character of the lists is well shown by the Lacertilia. Save the one not hitherto described, only one (*Mabuia dissimilis*) has not previously so far as I am aware been recorded from the Plateau. Of the 24 species in the collection, two only can be regarded as characteristically oriental (*Calotes versicolor* and *Varanus bengalensis*).

I have received much help with the identifications from the officials of the Society, and from Miss J. Procter of the British Museum. My thanks are due to them for this, especially to Messrs. R. A. Spence and S. H. Prater for their frequent and interesting letters at a time of great pressure of work in the Society's Office and to Miss Procter who has most kindly worked through the whole of the material of the Lacertilia in the collection and whose notes on this section add, I need not say, enormously to the value and interest of the paper.

I am indebted to R. S. Holmes, photographer, for permission to use some of his beautiful photographs of Waziristan.

In conclusion I should like to appeal on behalf of the Society's Museum for lizards. As long ago as 1905 Gleadow, in a most interesting article (Vol. XVI, No. 4, p. 723) in this Journal, made a similar appeal, giving a list of the specimens then in the museum and a very long list of "wants". The disproportion between those lists has not been since reduced as much as might have been hoped. The snake collection, thanks largely to the influence of Col. Wall, may claim to be representative. Lizards still hang fire. The reason may perhaps be found in part in the haunting and memorable lines—

"The beast I'm sure will well repay
Your kind and tender care
At least so lonely people say
Who keep a frog, and by the way
They are extremely rare."

Or words to that effect.

For frog read lizard. If members will turn up the article referred to above I am sure they will be moved, if not to keep lizards at once as pets, at least to bottle some and send them in. Few creatures are easier to collect. None involve less trouble in preserving. Gleadow's description of the Spiny-tailed

† For the identification of these I am indebted to Prof. Narayan Rao.

lizard, while losing much of its point in absence of the illustration which accompanies the original, may apply to all the tribe. "They are lovely, most interesting and surprisingly tame creatures."

Indus Plain.	South Waziristan.		
		Tank Zam & Baddar Toi.	Shahur R. & Wana Toi.
	Feet.	Feet.	Feet.
Dera Ismail Khan .	600	Kirghi 1,600	Shahur Tangi .. 2,500
Tank	850	Jandola 2,270	Haidari Kach .. 3,000
Kaur Bridge ..	1,000	Kot Kai 3,000	Sarwekai 3,600
Murtaza	1,000	Sora Rogha .. 4,000	Karab Kot 3,900
		Ladha 5,500	Wana 5,000
		Kaniguram .. 6,000	

CHELONIA—BY CAPT. C. M. INGOLDBY.

TRIONYCHIDÆ.

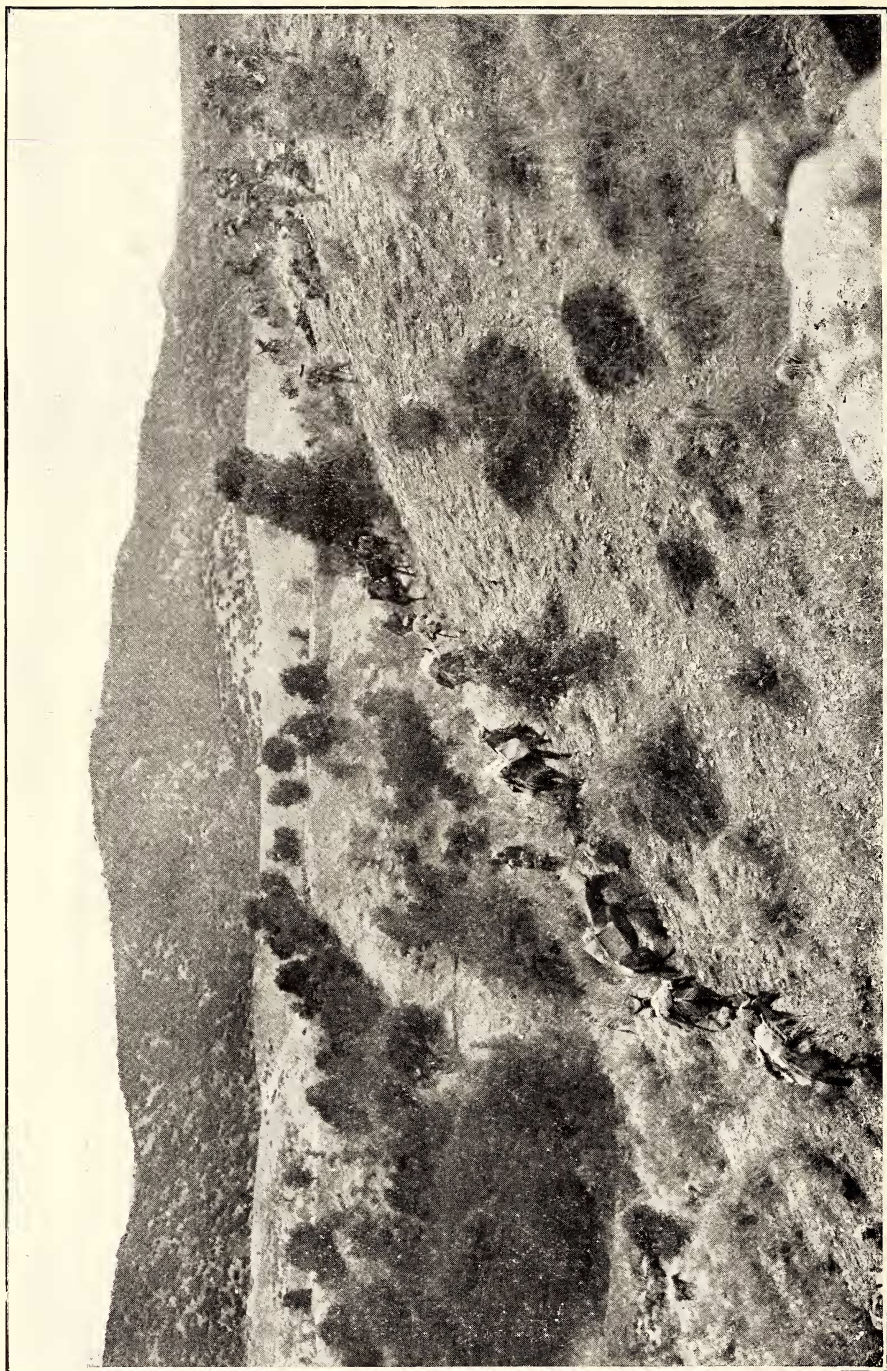
- (1) *Trionyx gangeticus*. Indus.
Common in the vicinity in the D. I. K.
- (2) *Emyda granosa* .. Near Tank.
Met with in the irrigation channels into which the Tank Zam splits up on reaching the plain.

TESTUDINÆ.

- (3) *Testudo horsfieldi*.
 - (4) *Testudo hardwickii*.
- } Found in association on the Wana plain near the surrounding hills. Said to be abundant on the Marwatai hills. The former is by far the commoner. Examples of both were previously sent to the Society by Cotton (J.B.N.H.S. Vol. XXV., p. 519, Vol. XXVI, p. 314).
- (5) *Kachuga smithii* ... Indus.
Abundant. The third vertebral which is quadrilateral or sub-quadrilateral in adult specimens is a clean cut pentagon in the young. It is necessary to bear this in mind when using Boulenger's key to the genus in the F.B.I.

LACERTILIA.—BY MISS PROCTER.

The lizards of Capt. Ingoldby's collection are interesting from two points of view: geographic distribution, and range of variation. They also include a new species of Gecko which I have much pleasure in naming after its discoverer. In most cases large series of specimens were caught, both adult and young, and the individual variation is often great, that occurring in *Eumeces schneideri* being of particular interest. Other species which deserve special mention on account of rarity are *Agamura persica* and *Ablepharus grayanus*.



ILEX FOREST NEAR LADHA.

Photo by R. E. Holmes, Peshawar.

GECKONIDÆ.

1. *Gymnodactylus scaber* Rüpp.

Specimens 13; adult and half-grown.

Localities: Dera Ismail Khan, Kaur Bridge, Tank, Kirghi, Sarwekai, Ladha, Wana.

Note.—A common desert gecko throughout the tract. A house gecko in Tank—C.M.I.

Distribution: Egypt to Afghanistan and Sind.

2. *Gymnodactylus ingoldbyi*, sp. n.

Specimens 6, ♂♂, 6 ♀♀, 2 half-grown, and young.

Localities: Ladha 5. Sarwekai 1, S. Waziristan (exact locality unmarked) 10.

Type: an adult ♂ from Ladha; British Museum Reg. No. 21. 3.21.1, Collector's number 63.

Description: *Habit.* Small; somewhat depressed. Head ovoid; snout roundly pointed, longer than distance between eye and ear; forehead very slightly concave, ear opening small, vertical; eye moderate. Limbs moderate; hind-limb reaching the shoulder or the constriction of the neck; fore-limb reaching slightly beyond tip of snout; digits very slender. Tail depressed, oval in section.

Lepidosis: Rostral about twice as broad as deep, with a median cleft above; nostril pierced between rostral, first labial, and two or three very small nasals; 9 or 10 supralabials, 9 or 10 infralabials; mental subtriangular usually equalateral; two pairs of large chin-shields and one or two smaller pairs, the first large pair in contact behind the mental.

Snout covered with convex rounded granules, moderate in size, becoming irregular in size posteriorly; occipital region covered with irregular convex granules intermixed with small tubercles. About



x 5

12 longitudinal series of moderate subtriangular keeled tubercles on the back, about the size of the ear opening when expanded; the series of tubercles separated from each other, transversely and longitudinally by one* series of small, keeled tubercles, highly irregular in size and shape (*vide* text-fig.). Upper surfaces of thigh and tibia covered with small keeled tubercles, intermixed with a few large ones; forelimbs covered with imbricate keeled scales. Subgular granules minute, ventrals very small, hexagonal, imbricate, in about 40 longitudinal series; lateral fold feeble. Tail with three paired longitudinal series of large trihedral mucronate tubercles on upper surfaces, arranged in transverse bands, two or three transverse series of small similar tubercles between each band. Smooth imbricate subcaudals, with a somewhat enlarged paired median series, which are often indistinguishable beneath the first three or four annuli.

Male with six præanal pores in a curved transverse series.

Coloration: Adults brown or greyish brown, with indistinct dark spots arranged in curved transverse series as in *G. kachhensis* or *G. scaber*; young with strongly marked, alternating, light and dark curved transverse bands; tail annulate.

This species is nearest to *G. kachhensis* which has similar subcaudals and præanal pores, but which differs in having longer legs, larger ventrals, and fine granular homogeneous lepidosis between the large dorsal tubercles.

* Sometimes two in places.

In *G. ingoldbyi* the ventrals are smaller and more numerous than in any other species of the *scaber* group. There are about forty series counting from the lateral fold; about fifty counting from the outer row of dorsals tubercles.

3. *Agamura persica* Dum
2 specimens.

Localities: Wana, Karab Kot.

Note:—Each was found on a stony plain, in the Wana vicinity. As noted above this extends the range.—C. M. I.

As foreshadowed by Professor Boulenger in his report on Dr. Aitchinson's specimens from the Afghan Border (Trans. Linn. Society., 1889, V. 3), *Agamura cruralis* and *A. persica* can no longer be separated. Specimens in the British Museum collection added since that date (*e.g.*, No. 1912. 3. 26.12.) show complete intergrading in all the points on which the two were originally separated by Blanford (Zoology, E. Persia, 1876, pp. 358 and 359). The creature thus shows a very remarkable range of variation not only in lepidosis but in form. Thus the length of the hind limb (grown to heel) compared with the length from snout to vent varies from 47% to 61% and there is most striking difference in the shape and size of the head compared with the trunk in different specimens. There seems to be some relation between distribution and their morphological differences, the short limbed small headed forms, Blanford's *A. persica*, occurring usually at a great height (over 8,000) and long limbed big headed forms commonly being found at about 1,000 ft. This relation, however, is not invariable. The above mentioned specimens from Waziristan, typically long limbed and big headed, were obtained at over 5,000 ft. A specimen of the other variety was obtained at Kharan, Baluchistan, by Cumming.

Distribution: Baluchistan, Waziristan, and S. E. Persia.

4. *Hemidactylus flaviviridis* Rüpp.

1 specimen, *Locality*: D.I.K.

Distribution: Red Sea to India.

5. *Hemidactylus persicus* Anders.

6 specimens.

Localities: Ladha, D.I.K., and Kaur Bridge.

Rare as a desert gecko on the Indus Plain.

An occasional house gecko in D.I.K.—C.M.I.

EUBLEPAIRDÆ.

6. *Eublepharis macularius* Blyth.

30 specimens.

Localities: Kaur Bridge (1), Manzai (1), Ladha (12), Wana (16).

Note:—Not uncommon on the Raghzas (patches of flat ground raised high above the river bed) near Ladha, and on the Wana plain. Usually found in the bases of old standing piles of stones. I only found two below 2,000 ft. One specimen captured voided Scybala containing the harder portions of crickets. I found no traces of vegetable matter in the few stomach contents examined. It is difficult to understand how a relatively slow moving creature, showing itself in captivity so thirsty and wasting rapidly if deprived of water, thrives on the desert at a distance of over a mile from the nearest water available. I examined three specimens of the young of this species; the first of which was presented to me by Capt. T. M.

Morton, 4-3rd Gurkha Rifles. These exhibit typical "warning coloration," being broadly banded on the body with black and vivid yellow alternately. Traces of yellow remain throughout life in the appearance of faint powdering over the light parts of the body.—C.M.I.

Distribution : N. W. India; Persia and Baluchistan, Mesopotamia and Transcaucasia.

AGAMIDÆ.

7. *Calotes versicolor* Daud.

20 specimens.

Localities : Ladha (14), Wana (6).

Note :—Found at and above 5,000 ft. I found it on three occasions on stony hillsides at a very considerable distance from the nearest bush or tree. The largest examined was only eight inches, total length (sv. 2.4 T 5.6)—C.M.I.

Distribution : Afghanistan and Baluchistan to Southern China.

8. *Agama isolepis* Blgr.

29 specimens.

Localities : Kaur Bridge (15), Kulachi (2), Wana (12).

Notes :—Abundant on the Indus plain in the neighbourhood of the foothills on the Wana plain. I do not recall having seen notice published of the considerable extent to which, as in some other *Agamas*, the female shares with the male the capacity for a vivid blue 'flushing' of throat and flanks under excitement.—C.M.I.

The female and two young have a vertebral series of light pinkish lozenge-shaped spots.

Distribution : Egypt to Sind, Waziristan is probably the most northerly point at which this species occurs.

9. *Agama rubrigularis* Blanf.

5 specimens.

Localities : Kaur Bridge (1), Manzai (3), (1 unlabelled).

Notes :—Found along the low foothills up to about 1,500 ft. It is most commonly seen about sunset. I have never met it in the hot weather during the heat of the day.—C.M.I.

The dorsal scales of these specimens are distinctly keeled, particularly on one male, which resembles many specimens of *Agama persica* in this particular; in fact since in many of the latter the dorsal scales are not very strongly keeled, the two species can no longer be separated by this character.

Distribution : Persia, Baluchistan, Sind.

Waziristan is probably the northern boundary of its range of distribution.

10. *Agama nupta* De Fil.

4 specimens.

Localities : Shahur Tangi (1), Rogha Kot (1), Wana (2).

Note :—Like the two following species, this is extremely local in its distribution. I never saw it in the valley of the Tank Zam. In two of the three specimens obtained the majority of the caudal segments in the proximal third of the tail were composed of two whorls of scales only.—C.M.I.

Distribution : Mesopotamia, Persia, Baluchistan. Waziristan is probably the Eastern limit of its range.

11. *A. lirata* Blanf.

5 specimens.

Locality : Ladha.

Note :—Found on the wooded rocky hillsides in the neighbourhood of Ladha and Kaniguram, sometimes together with, but far less commonly than the following form. The stomach contents in each case examined were purely vegetable. One stomach contained, amongst much other vegetable matter, three berries.—C.M.I.

The enlarged dorsal scales of these specimens are practically smooth; in transverse section they would be shaped, but have no distinct keel; although this is unusual, there are similar specimens in the collection of the British Museum.

Distribution : Sind and Baluchistan. A new record for Waziristan.

12. *Agama caucasica* Eichw.

7 specimens.

Locality : Ladha.

Notes :—Abundant but very local in the neighbourhood of Ladha.—C.M.I.

These specimens have 180 scales round the body, as against 150 to 160 which is the range given for this species in the "Fauna of British India." In this respect they agree with two specimens collected by Capt. Hotson in Baluchistan, and presented to the British Museum by the Society. Possibly further collecting may produce specimens completely linking up this species with a *A. microlepis*, which resembles it in all other characters.

Distribution : Caucasus to Persia, Baluchistan, Waziristan and Afghanistan.

13. *Uromastix hardwickii* Gray.*Locality* : Kaur Bridge.

Note :—A large colony in the vicinity of Kaur Bridge. Said to be common around Bannu. The largest I measured (♀) had a total length of 16½"—C.M.I.

Distribution : N.-W. India to Baluchistan.

VARANIDÆ.

14. *Varanus griseus* Daud.

4 specimens.

Locality : Kaur Bridge.

Distribution : N.-W. India to Caspian Sea and N. Africa.

15. *Varanus bengalensis* Daud.

6 specimens.

Localities : D. I. K. (1), Kaur Bridge (5), also seen at Ladha and Wana. Common throughout the tract.—C.M.I.

Distribution : India, Ceylon, Burma, Assam. Waziristan is probably the North-Western limit of its range.

LACERTIDÆ.

16. *Acanthodactylus cantoris* Gthr.

4 specimens.

Localities : Kaur Bridge, Kulachi.

Note :—Nothing remarkable. The commonest lizard of the Indus plain, I did not find it above 1,000 ft.—C.M.I.

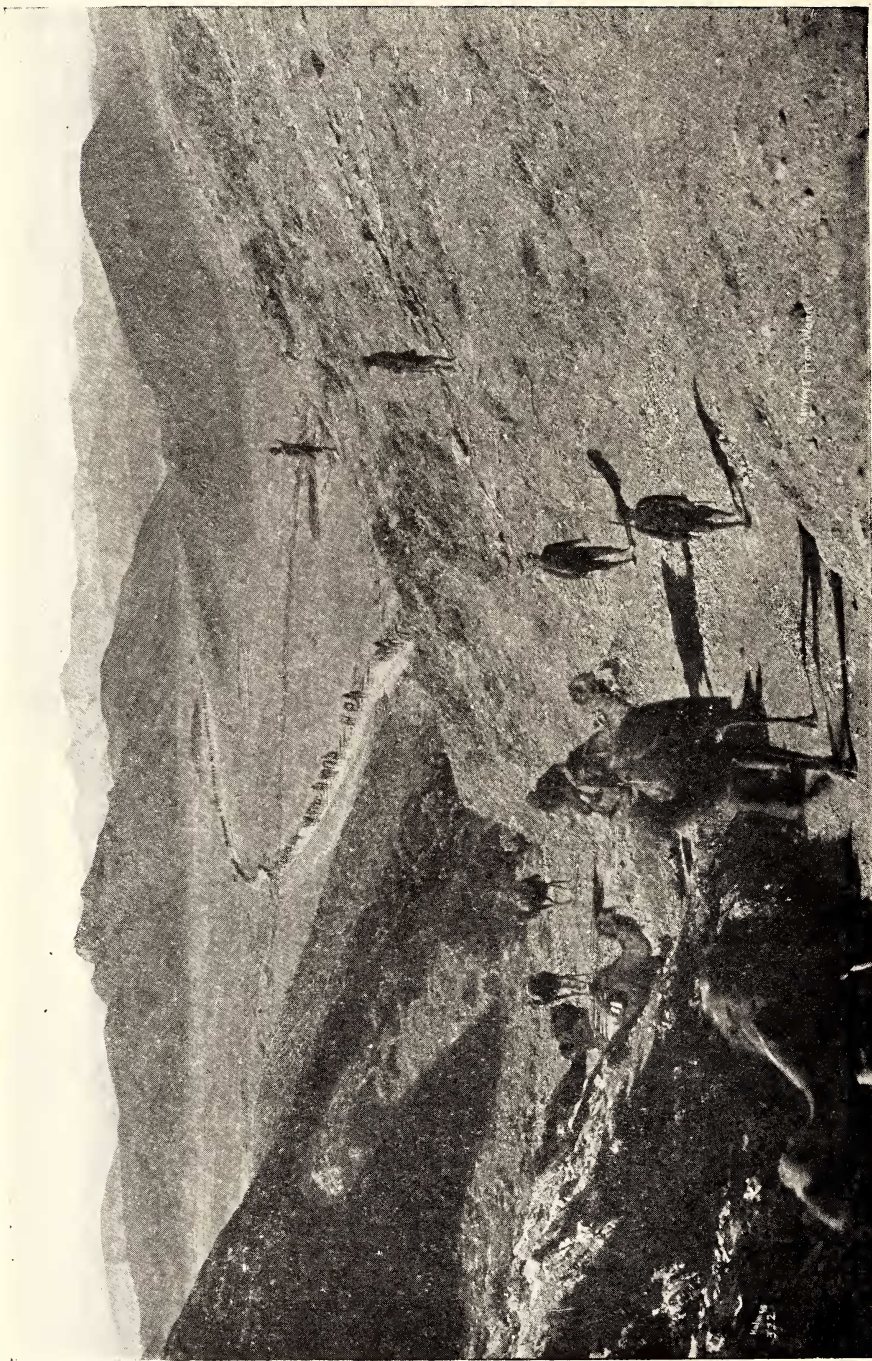


Photo by R. E. Holmes, Peshawar.

CONVOYS FROM WANA.

The young of this species are strikingly marked with the primitive pattern of seven longitudinal black stripes, alternating with six white ones.

Distribution : N.-W. India to Persia.

17. *Ophiops jerdoni* Blyth.

15 specimens.

Localities : Murtaza (3), Ladha (6), Wana-Sarwekai (5), Haidari Kach (1).

Notes :—Met with occasionally whenever there was open ground from 1,000 ft. upwards.—C.M.I.

An interesting series, including three extremely young specimens.

Distribution : N.-W. India and C. India.

18. *Eremias guttulata* Licht.

Many specimens.

Localities : Kaur Bridge, Jandola Wana. Most individuals not labelled.

Notes :—Extremely common almost throughout the tract from the Tank neighbourhood upwards. I did not find it in the upper Tank Zam valley.

A considerable number of males exhibited very marked plumbeous staining of the throat and chin, extending as irridescence over the belly. In only two cases of a large series was the throat yellow. Both were males.—C.M.I.

These lizards show considerable range of variation in the size and shape of the occipital shield.

Distribution : North Africa, South-Western Asia from Arabia to Afghanistan and Sind. Waziristan is probably the most Easterly point recorded.

19. *Eremias velox* Pallas.

Many specimens.

Localities : Ladha, Wana. Many specimens unlabelled.

Notes :—Common at 5,000 ft. and upwards.

All the young obtained had blue tails. I never saw the pink tail described in the F. B. I., Bombay, 1894.—C.M.I.

A series of 45 specimens show great range of variation in rugosity of the head shields, size of the interparental, and in markings.

Distribution : S. Russia, Transcaucasia, Turkestan, Persia, Baluchistan and Afghanistan. Waziristan is the Eastern limit of its range.

20. *Eremias fasciata* Blanf.

1 specimen.

Locality : Wana.

Note :—The scale rows, as nearly as I could make out with a poor lens, were 54. In all other respects it agrees well with descriptions by Blanford (Zool. E. Persia) and Bouleng. (F. B. I.).—C.M.I.

Distribution : S. Persia, Baluchistan. Waziristan is probably the N.-E. limit of its range.

SCINCIDÆ.

21. *Mabuia dissimilis* Hallow.

5 specimens.

Locality : Haidari Kach.

Notes :—Very local. I only found it in one place, where it was occupying the burrow of mole rats near the river bed.—C.M.I.

These specimens are of considerable interest. In two specimens the dorsals are strongly bicarinate as is usual in this species; the 3 other specimens have only the middle 3 or 5 rows bicarinate, all

other dorsals being tricarinate, the middle keel the weakest, but quite distinct; the strongly tricarinate scales usually confined to the nuchal, and lateral areas continue far behind the shoulders.

This species resembles *M. septemteniata* in the head-shields, and *M. vittata* in colour, markings, and general appearance. The 5 specimens in question have the characteristic greenish white, black edged vertebral and lateral stripes, with greenish white spots on the sides.

One female contains about 6 eggs.

Distribution: Western Himalayas, plains of N. India. Not previously recorded from Waziristan.

22. *Ablepharus grayanus* Stol.

2 very young specimens.

Locality: Ladha.

Note:—This rare skink differs from other species of the genus in having the tympanum hidden. Both specimens are well marked, the smaller was evidently newly hatched.

Distribution: Cutch, Sind, Kurrachee. A new record for Waziristan.

23. *Eumeces scutatus* Theob.

27 specimens.

Localities: Kaur Bridge (7), Ladha (8), Wana (12).

Note:—Found in greatest abundance as the Afghan border was approached. Usually obtained from the burrows of *Tatera indica* in the sandy patches, which occur round the roots of bushes on the otherwise stony plain bordering the foothills, or from those of *Gunomys* sp.* in the cultivated areas at higher elevations.

Adult specimens from the ilex level (Ladha-Kaniguran) were noticeably darker and more heavily striped than specimens of equal size from the Indus or Wana plains.

The vivid deep saffron of the belly disappears in spirit in 3 or 4 days.—C.M.I.

Distribution: E. Persia, Afghanistan (?), N.-W. India. A new record for Waziristan.

24. *Eumeces schneideri* Daud.

30 specimens.

Localities: Kirghi (1), Jandola (2), Kot Kai (1), Sarwekai (1), Wana (25).

Notes:—Of 23 specimens examined, 3 have 30 scales around the mid-body; one has 29; 2 have 27 and one has 26. The remaining have 28.

The heads, in females, frequently have a somewhat bleached appearance, but in no case show the greenish yellow colour of the heads of adult and half grown males.

Found on all open ground covered between 1,500 and 5,000 ft. On Wana plain, where this skink is very abundant, I examined a considerable number of burrows. All were of the type described by Blanford (Zool. E. Persia, 1876, p. 388), i.e., bending at a right angle a few inches from the surface. The burrows were usually about 18 inches to 2 feet in length, commonly opening into the lip of a depression and running horizontally, and occasionally showing a second right angle bend.

At the time most of the burrows were examined (February) the lizards were hibernating. The burrow was often found to be

* *Note*.—The mole rat (*Gunomys* sp.) was invariably found in the cultivated patches.